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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/001,348	10/31/2001	Dean R. Potts	99-633	2204	
719	7590 03/05/2003				
CATERPIL	CATERPILLAR INC.			EXAMINER	
PATENT DE			SINGH, S	SUNIL	
PEORIA, IL 616296490		•	ART UNIT	PAPER NUMBER	
			3673		
			DATE MAILED: 03/05/2003	•	

Please find below and/or attached an Office communication concerning this application or proceeding.



Office Action Summary

Application No. 10/001,348 Applicant(s)

001,348

Potts

Examiner Sunil Singh Art Unit **3673**



		I JURIAL LALI AND
	The MAILING DATE of this communication appears	on the cover sheet with the correspondence address
	for Reply	TO THE TOTAL OF THE PARTY OF TH
THE N	ORTENED STATUTORY PERIOD FOR REPLY IS SET MAILING DATE OF THIS COMMUNICATION.	
	ions of time may be available under the provisions of 37 CFR 1.136 (a). In a date of this communication.	no event, however, may a reply be timely filed after SIX (6) MONTHS from the
- If the p	period for reply specified above is less than thirty (30) days, a reply within th	ne statutory minimum of thirty (30) days will be considered timely. and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure - Any rei	to reply within the set or extended period for reply will, by statute, cause th ply received by the Office later than three months after the mailing date of the	ne application to become ABANDONED (35 U.S.C. § 133).
Status	patent term adjustment. See 37 CFR 1.704(b).	
_	Responsive to communication(s) filed on	<u> </u>
2a) 🗌	This action is FINAL . 2b) 💢 This action	ion is non-final.
3) 🗆	Since this application is in condition for allowance e closed in accordance with the practice under Ex par	except for formal matters, prosecution as to the merits is rte Quayle, 1935 C.D. 11; 453 O.G. 213.
Disposit	tion of Claims	
4) 💢	Claim(s) <u>1-26</u>	is/are pending in the application.
4	a) Of the above, claim(s)	is/are withdrawn from consideration.
5) 🗆	Claim(s)	is/are allowed.
6) 💢	Claim(s) 1-3, 5-8, 10-14, 16-18, and 20-25	is/are rejected.
7) 💢	Claim(s) 4, 9, 15, 19, and 26	is/are objected to.
8) 🗆	Claims	are subject to restriction and/or election requirement.
Applica	tion Papers	
9) 💢	The specification is objected to by the Examiner.	
10)💢	The drawing(s) filed on Oct 31, 2001 is/are	a) \square accepted or b) \square objected to by the Examiner.
	Applicant may not request that any objection to the d	rawing(s) be held in abeyance. See 37 CFR 1.85(a).
11)□	The proposed drawing correction filed on	is: a) \square approved b) \square disapproved by the Examiner.
	If approved, corrected drawings are required in reply t	to this Office action.
12)	The oath or declaration is objected to by the Exami	ner.
Priority	under 35 U.S.C. §§ 119 and 120	
	Acknowledgement is made of a claim for foreign pr	riority under 35 U.S.C. § 119(a)-(d) or (f).
a)	☐ All b)☐ Some* c)☐ None of:	
	1. \square Certified copies of the priority documents have	e been received.
;	2. \square Certified copies of the priority documents have	e been received in Application No
	3. Copies of the certified copies of the priority do application from the International Burea	au (PCT Rule 17.2(a)).
	ee the attached detailed Office action for a list of the	
	Acknowledgement is made of a claim for domestic	
a) ∟ 15\□		
15)∐ ^* **achm	Acknowledgement is made of a claim for domestic	priority under 35 U.S.C. 33 120 and/or 121.
Attachmo	ent(s) ./ tice of References Cited (PTO-892)	4) Interview Summary (PTO-413) Paper No(s).
$\stackrel{\sim}{=}$	tice of Draftsperson's Patent Drawing Review (PTO-948)	5) Notice of Informal Patent Application (PTO-152)
3) X Info	ormation Disclosure Statement(s) (PTO-1449) Paper No(s)	8) Other:

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DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: at page 4 line 17, first occurrence of reference character "26" should be --14--; page 5 line 14 "motor" should be deleted; page 5 line 23, "teeth 110" should be --teeth 112--. Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "hand wheel" as called for in claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because Figure 3 appears as if it should be shown with reference character 28 to the left of the page instead of the right, in other words it appears as if the drawing should be reversed. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5-8, 10, 16-18, 20-22 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 lines 2-3, "said movable ring gear" lacks clear antecedent basis.

Claim 10 lines 7-8, "said sensor to control operation of said vibrator propel motor" lacks clear antecedent basis.

Claim 16 line 4, "said movable ring gear" lacks clear antecedent basis.

Claims 17 & 18, line 1, "said phase control" lacks clear antecedent basis.

Claim 20 lines 2-3, "said movable ring gear" lacks clear antecedent basis.

Claim 21 line 2, "said through shaft" lacks clear antecedent basis.

Claim 21 lines 8-9, "said phase control device" lacks clear antecedent basis.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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7. Claims 1-3, 5, 8, 11, 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Wall (US 4152943).

Wall discloses a work machine comprising a compacting drum (see col. 1 line 7), a vibratory mechanism (see Figs. 1-3) that includes a first eccentric weight (34) and inner shaft (36), a second eccentric weight (28,14,14a) and outer shaft (16,16a,20,20a), a gear box (12), said gear box adapted to index said second eccentric weight relative to said first eccentric weight, a motor (see col. 3 line 20) connected to the gear box, the gear box has first and second planetary arrangements (see col. 3 lines 6-10, 24-26), the phase control device is a handwheel (see Fig. 1).

With regards to claims 23-24, the recited method steps are considered inherent to the use of the apparatus disclosed by Wall.

8. Claims 1-3, 5, 8, 11, 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Goehler et al. (US 4454780).

Goehler et al. discloses a work machine comprising a compacting drum (see abstract line 2), a vibratory mechanism (see Figs. 1,1a,2) that includes a first eccentric weight (60) and inner shaft (58,58'), a second eccentric weight (54) and outer shaft (32,50), a gear box (14), said gear box adapted to index said second eccentric weight relative to said first eccentric weight, a motor (36) connected to the gear box, the gear box has first and second planetary arrangements (66,68), the phase control device is a handwheel (78).

With regards to claims 23-24, the recited method steps are considered inherent to the use of the apparatus disclosed by Goehler et al.

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Claim Rejections - 35 USC § 103

- 9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 10. Claims 6,7 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wall.

Wall discloses the invention substantially as claimed. However, Wall is silent about his phase control device being a phase motor or a rack with two opposing linear actuators. Further, Wall is silent about operating the gear box automatically. Phase control devices being a phase motor or a rack with two opposing linear actuators are old and well known in the art.

Automatically operating an indexing arrangement is old and well known in the art as well. It would have been considered obvious to one of ordinary skill in the art to modify Wall by substituting either a phase motor or a rack with two opposing linear actuators for the phase control device disclosed by Wall since it is a design choice to substitute equivalent parts for performing equivalent functions. Furthermore, it would have been considered obvious to automate the indexing feature in order to avoid delays while performing the compacting task.

11. Claims 6,7 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goehler et al.

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Goehler et al. discloses the invention substantially as claimed. However, Goehler et al. is silent about his phase control device being a phase motor or a rack with two opposing linear actuators. Further, Goehler et al. is silent about operating the gear box automatically. Phase control devices being a phase motor or a rack with two opposing linear actuators are old and well known in the art. Automatically operating an indexing arrangement is old and well known in the art as well. It would have been considered obvious to one of ordinary skill in the art to modify Goehler et al. by substituting either a phase motor or a rack with two opposing linear actuators for the phase control device disclosed by Goehler et al. since it is a design choice to substitute equivalent parts for performing equivalent functions. Furthermore, it would have been considered obvious to automate the indexing feature in order to avoid delays while performing the compacting task.

Claims 12-14, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wall 12. or Goehler et al. in view of Swanson et al. or Staffenhagen et al. (US Pub. 2003/0021629 A1, 2002/0172556 A1).

Wall and Goehler et al. both disclose the invention substantially as claimed. However, they both are silent about a first power source (hydraulic/electric) connected to a propel motor and a second power source (hydraulic/electric) connected to the vibratory motor. Swanson et al. and Staffenhagen et al. both teach a first power source (hydraulic/electric) connected to a propel motor and a second power source (hydraulic/electric) connected to the vibratory motor. It would have been considered obvious to one of ordinary skill in the art to modify either Wall or Goehler

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et. to include the above teachings of a first power source (hydraulic/electric) connected to a propel motor and a second power source (hydraulic/electric) connected to the vibratory motor as taught by either Swanson et al. or Staffenhagen et al since such an arrangement allows the operator of the working machine to easily control the amount of vibration delivered to the soil. With regards to claims 17-18, it would have been considered obvious to one of ordinary skill in the art to modify either Wall or Goehler et al. by substituting either a phase motor or a rack with two opposing linear actuators for the phase control device disclosed by either Wall or Goehler et al. since it is a design choice to substitute equivalent parts for performing equivalent functions.

Allowable Subject Matter

- Claims 4,9,15,19 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 14. Claims 10,20-22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
- As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

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Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Sechi (US 3590702) teaches a vibratory mechanism.

17. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Sunil Singh whose telephone number is (703) 308-4024. The examiner can

normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Heather Shackelford, can be reached on (703) 308-2978. The fax phone number for the

organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 308-2168.

Sunil Singh

Patent Examiner

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